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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,528

12/20/2005

Hiroshi Taniuchi

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EXAMINER

LEGESSE, HENOK D

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,528	Applicant(s) TANIUCHI ET AL.	
	Examiner HENOK LEGESSE	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-46 is/are pending in the application.
- 4a) Of the above claim(s) 28, 38 and 41-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26, 27, 29-37, 39, 40 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/12/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 26,27,29-37,39-40,46) and Species A (claims 26,27,29-37,39-40) in the reply filed on 04/30/2010 is acknowledged. The traversal is on the ground(s) that the claims pending were rejected in previous office action. Thus examining all groups and species would not be serious burden. This is not found persuasive because at least claim 26 is amended as filed on 01/08/2010 and at least claims 26,36,37,39 are amended and claim 46 is added as presently filed on 04/30/2010. Furthermore, up on reviewing the claims examiner has also realized that the different groups and species requires different field of searches for example different classes/subclasses and different search queries. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 26,27,29-37,39-40 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedember et al. (US 2004/0182270) in view of Komatsu et al. (US 6,059,407).

Regarding claim 26, Wiedember et al teaches an image forming method (figs.1-3) comprising the steps of:

applying a liquid (30, figs.1,2) for reacting with an ink on the an intermediate transfer body (20) having the a surface to which the hydrophilic treatment by applying energy has been performed (paragraphs 0012,0032);

forming an image by ejecting the ink (10) on the intermediate transfer body (20,22) on which the liquid has been applied; and

transferring the image formed on the intermediate transfer body (20,22) to a recording medium (24).

Wiedember et al does not explicitly teaches the ink ejecting device is an ink jet head.

However, Komatsu et al teaches similar recording system using ink jet type recoding head (2, figs.1,2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use ink jet head in the device of Wiedember et al based on the teachings of Komatsu et al in order to provide ink ejector that is easy to maintain with fewer parts and lower cost and that can be easily used to eject plurality of ink colors.

Regarding claim 27, Komatsu et al further teaches wherein the surface of the intermediate transfer body contains at least one of a fluorine compound and a silicone compound (col.3, lines 57-67).

Regarding claims 29 and 30, Wiedember et al further teaches wherein the hydrophilic treatment comprises plasma processing (paragraphs 0012,0032, note also it is obvious to repeat plasma/corona treatment in order to get the desired level of hydrophilic property).

Regarding claims 31 and 32, Komatsu et al further teaches wherein the liquid contains a component for coagulating a colorant of the ink, wherein the component comprises metal ions (col.3 lines 8-42, surfactants are known to include metal ions and affects the viscosity of ink. also see paragraphs 0022,0032 of Wiedember et al).

Regarding claim 33, Wiedember et al as modified by Komatsu et al further teaches step of applying a wettability improving liquid for improving a wettability of the

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surface of the intermediate transfer body prior to applying the liquid (Paragraphs 011,0022,0032 of Wiedember et al, col.3 lines 8-42 of Komatsu et al).

Regarding claim 34, Wiedember et al as modified by Komatsu et al further teaches step of promoting a removal of water from the ink on the intermediate transfer body prior to transferring the image to the recording medium (7, figs.5,6 of Komatsu et al).

Regarding claim 35, Wiedember et al as modified by Komatsu et al further teaches step of cleaning the surface of the intermediate transfer body (64, figs.1,2 of Wiedember et al, 52, fig.4 of Komatsu et al).

Regarding claim 36, Wiedember et al as modified by Komatsu et al further teaches an image forming method (figs.1-3 of Wiedember et al) comprising the steps of: performing plasma processing (paragraphs 0012,0032) to a surface of an intermediate transfer body (20, figs.1,2) to make the surface hydrophilic; applying a liquid (30) for reacting with an ink on the intermediate transfer body (20) having the surface to which the plasma processing has been performed; forming an image by ejecting the ink from an ink jet head (2, figs.1,2 of Komatsu et al as applied in claim 26 above) on the intermediate transfer body (20) on which the liquid has been applied; and transferring the image formed on the intermediate transfer body (20) to a recording medium (24).

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Regarding claim 37, Wiedember et al as modified by Komatsu et al further teaches an image forming method (figs.1-3 of Wiedember et al) comprising the steps of: performing plasma processing (paragraphs 0012,0032) on to a surface of an intermediate transfer body (20), the surface containing at least one of fluororubber and silicone rubber (col.3, lines 57-67 of Komatsu et al) to make the surface hydrophilic; applying a liquid (col.3 lines 8-42 of Komatsu et al, paragraphs 0022,0032 of Wiedember et al) for coagulating a colorant of ink on the intermediate transfer body having the surface on to which the plasma processing (paragraphs 0012,0032 of Wiedember et al) has been performed; forming an image by ejecting ink from an ink jet head (2, figs.1,2 of Komatsu et al as applied in claim 26 above) on the intermediate transfer body on which the liquid has been applied; and transferring the image formed on the intermediate transfer body (20 of Wiedember et al) to a recording medium (24).

Regarding claim 39, Wiedember et al as modified by Komatsu et al further teaches an image forming method (figs.1-3 of Wiedember et al) comprising the steps of: applying a liquid (30, figs.1,2) for reacting with an ink on an intermediate transfer body (20) to which hydrophilic treatment by plasma processing has been performed (paragraphs 0012,0032); forming an image by ejecting the ink from an ink jet head (2, figs.1,2 of Komatsu et al as applied in claim 26 above) on the intermediate transfer body on which the liquid has been applied; and transferring the image formed on the intermediate transfer body (20 of Wiedember et al) to a recording medium (24).

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Regarding claim 40, Wiedember et al as modified by Komatsu et al further teaches wherein the surface contains at least one of fluororubber and silicone rubber (col.3, lines 57-67 of Komatsu et al).

Regarding claim 46, Wiedember et al as modified by Komatsu et al further teaches step of performing the hydrophilic treatment to the surface of the intermediate transfer body (paragraphs 0012, 0032 of Wiedember et al).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENOK LEGESSE whose telephone number is (571)270-1615. The examiner can normally be reached on Mon.- Fri. Between. 8:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW LUU can be reached on (571)272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MATTHEW LUU/
Supervisory Patent Examiner, Art
Unit 2861

H.L.
July 31, 2010